

Date: Wed, 1 Dec 93 04:30:11 PST
From: Ham-Ant Mailing List and Newsgroup <ham-ant@ucsd.edu>
Errors-To: Ham-Ant-Errors@UCSD.Edu
Reply-To: Ham-Ant@UCSD.Edu
Precedence: Bulk
Subject: Ham-Ant Digest V93 #129
To: Ham-Ant

Ham-Ant Digest Wed, 1 Dec 93 Volume 93 : Issue 129

Today's Topics:

Automatic Antenna tuners
Beverage antenna help needed (2 msgs)
Isoloop Antenna
Isoloop on Apt Terrace
Pinched COAX
Tower Guy Anchors
Turnstile-Reflector

Send Replies or notes for publication to: <Ham-Ant@UCSD.Edu>
Send subscription requests to: <Ham-Ant-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Ant Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-ant".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: 30 Nov 93 01:06:31 GMT
From: ogicse!cs.uoregon.edu!sgiblab!munnari.oz.au!pellew.ntu.edu.au!
RARP224_43.NTU.EDU.AU!trecon@network.ucsd.edu
Subject: Automatic Antenna tuners
To: ham-ant@ucsd.edu

I am thinking of purchasing an automatic antenna tuner. Could I have some
thoughts/comments on these from anyone who has used one. Also, any
recommendations?

Trevor

Date: Tue, 30 Nov 1993 12:20:00 GMT
From: pipex!sunic!news.funet.fi!news.cs.tut.fi!jps@uunet.uu.net

Subject: Beverage antenna help needed
To: ham-ant@ucsd.edu

In article <30NOV93.00113531.0094@UNBVM1.CSD.UNB.CA> NAD0000 <NAD0@UNB.CA> writes:

>We just installed an 80 meter Beverage antenna in order to see how
>quiet and directional reception was going to be.

>

>It is quiet indeed. About as quiet as a dummy load! This includes
>the signals coming in... Occasionally, I am able to copy a signal
>loud and clear which on my trap dipole is completely lost in the
>shuffle. As a rule however, an S9 +30 signal on my dipole leaves an
>audio signal that is nice and quiet but the S meter *does not move
>at all!* Is this normal?

Yes!. Beverage has gain which is few10 dBd minus than normal halfwave dipole
in maximum lobes and in minimum gain is very much lower.

My friend, who is also Dx-listener, has 800m!!! Beverage for MW-band, and he
says that it work very succsesfull. The main point is that the B attenuates
very much more "local" signals which are coming very "high" angles than
"DX"-signals coming low angles. So it's possible that your local signal
(signal must be local/near than few hundred kms if its so strong, i think),
attenuates so much.

>

>To make the transformer, going from 500 to 50 ohms, we soldered a
>wire Size #18 or so to the antenna wire (size #14, insulated) and
>turned it 50turns on a plastic spool. Directly on top of this we put
>10 turns of another wire, soldered to a regular 50ohm coax.

>

I don't know is 10 turns ok for 50ohms on 80m:s, but if you are
doing transformer 1:10 (50=>500), the turns must be 10 and 32.
50 turns make output impedance abt 1300 ohms.

>Did we do anything wrong?

Maybe you could make transformer using toroid core, maybe it works better,
but i'm not sure about that.

>Luis Nadeau

>

>Box 7, Site 4, RR4, Fredericton, NB

>CANADA E3B 4X5

>FAX: (506)450-2718; Hamcall: VE1LRN (soon to be VE9LN or VE9LRN)

>

>

--

** Jukka Salonen OH3NLP * E-mail: jps@cs.tut.fi *****

** Addr: Sorva *****
***** 37120 Nokia ***** Too old to Rock and Roll, too young to die.***
***** Finland *****

Date: 30 Nov 93 19:00:13 GMT
From: ogicse!emory!rsiatl!ke4zv!gary@network.ucsd.edu
Subject: Beverage antenna help needed
To: ham-ant@ucsd.edu

In article <30NOV93.00113531.0094@UNBVM1.CSD.UNB.CA> NAD0000 <NADO@UNB.CA> writes:
>We just installed an 80 meter Beverage antenna in order to see how
>quiet and directional reception was going to be.

Not sure what you mean here. An 80 meter (band) Beverage should
be about 800 meters long. An 80 meter (long) Beverage should make
an effective 10 meter (band) antenna.

>It is quiet indeed. About as quiet as a dummy load! This includes
>the signals coming in... Occasionally, I am able to copy a signal
>loud and clear which on my trap dipole is completely lost in the
>shuffle. As a rule however, an S9 +30 signal on my dipole leaves an
>audio signal that is nice and quiet but the S meter *does not move
>at all!* Is this normal?

The Beverage is a travelling wave antenna. It strongly favors low
angle radiation from it's end fire direction. (That's why we use
them.) Now most *strong* signals will be local/high angle and will
be suppressed considerably from the weaker low angle DX signals.
So your results aren't too unexpected. Still, a MF Beverage often
has *volts* of signal at it's terminals.

>To make the transformer, going from 500 to 50 ohms, we soldered a
>wire Size #18 or so to the antenna wire (size #14, insulated) and
>turned it 50 turns on a plastic spool. Directly on top of this we put
>10 turns of another wire, soldered to a regular 50ohm coax.
>
>Did we do anything wrong?

Yes. The impedance ratio of a transformer is proportional to the
square of the turns ratio. So your coil should have a turns ratio
of 3.162:1 for an impedance ratio of 10:1. Also, a rule of thumb is
that the reactance of the winding should be 10 times the impedance
being transformed. That means your antenna coil should have a reactance
of approximately 5,000 ohms at the design frequency, and your coax
coupling coil should have a reactance of at least 500 ohms. Ferrite
loaded coils will likely be more managable.

Gary

--

Gary Coffman KE4ZV	Where my job's going,	gatech!wa4mei!ke4zv!gary
Destructive Testing Systems	I don't know. It might	uunet!rsiatl!ke4zv!gary
534 Shannon Way	wind up in Mexico.	emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244	-NAFTA Blues	

Date: 29 Nov 1993 17:47:08 -0800
From: nwnexus!tedt@uunet.uu.net
Subject: Isoloop Antenna
To: ham-ant@ucsd.edu

Recently, I posted a message describing my Isoloop 10-30 antenna on my terrace being surrounded by metal. I wanted to know if anyone out there had experience with Isoloops on apartment terraces and how I could improve my reception.

Unfortunately, when I logged on I lost the response and could not retrieve it. (How does one retrieve lost messages?)

Thanks.

Ted, KB7ZQQ

Date: 28 Nov 1993 22:13:20 -0800
From: mvb.saic.com!unogate!news.service.uci.edu!usc!math.ohio-state.edu!
news.cyberstore.ca!nwnexus!tedt@network.ucsd.edu
Subject: Isoloop on Apt Terrace
To: ham-ant@ucsd.edu

I have an Isoloop 10-30 antenna on my apartment terrace powering my HF rig. The Isoloop is practically surrounded by metal.

Anyone have any suggestions on improving reception?

Thanks.

Ted

Date: Tue, 30 Nov 1993 15:56:36 GMT
From: library.ucla.edu!agate!howland.reston.ans.net!math.ohio-state.edu!

magnus.acs.ohio-state.edu!csn!yuma!galen@network.ucsd.edu
Subject: Pinched COAX
To: ham-ant@ucsd.edu

In article <1993Nov29.192052.770@pony.Ingres.COM> kerry@Ingres.COM (Kerry Kurasaki) writes:

>Query for those "in the know".

>

>For a mag mount antenna on the car, the COAX will invariably be pinched
>at either the trunk, hatch, or door where it enters the passenger com-
>partment. Most of us live with that fact, but has anyone measured
>what the effects really are? And are these effects really worth worrying
>about?

When I run the coax thru a car door or the trunk, I make sure the coax crosses the jamb at an angle of 10-30 degrees, NOT AT A RIGHT ANGLE. This spreads the force on the coax over a greater area and decreases the pinching. I also make sure it won't wick water in thru the door by having my angle in the right direction, this will vary depending on what yer running it thru.

Galen, KF0YJ

Date: Mon, 29 Nov 1993 22:36:49 GMT
From: pacbell.com!sgiblab!spool.mu.edu!sol.ctr.columbia.edu!jabba.ess.harris.com!mlb.semi.harris.com!controls.ccd.harris.com!drs@network.ucsd.edu
Subject: Tower Guy Anchors
To: ham-ant@ucsd.edu

There has been so much (very interesting) discussion since my original post that I have learned a lot - but - I was sort of planning the following: (blast me if you wish) 3 inch diameter (heavy wall) steel pipe of about 8 ft long. I was planning on digging down about 3 feet with a shovel. Then in that hole dig with a post hole digger another 3 feet. Put the pipe in and surround all of it with concrete. Then use one of my screw anchors as a back stay tied to the top of the steel post which should be a couple of feet or so out of the ground. That takes care of two guys (if approved by the majority). My original "problem guy" was one that is a bit close to the tower (probably 25% too close). One suggestion was similar to what I plan for the two guys I just mentioned.

What about using (just for the close guy) two guys that are 45 degrees off of the center line of the tower leg? The problem I see is in getting them to pull equally on the tower. I do have torque clamps to clamp around the tower at the guying point.

Regarding the shrinking / expansion of guy wires. I always thought that guy wires got tighter in the winter time. Seems to me that I have heard

of people up North putting towers up in the Summer time and when Winter came, they actually had guys break because they got tighter.

Well Enough, Doug, N4IJ

Date: 30 Nov 93 15:06:21 GMT
From: news-mail-gateway@ucsd.edu
Subject: Turnstile-Reflector
To: ham-ant@ucsd.edu

The antenna is described in the satellite experimenters handbook. I will bring mine in tomorrow and send you the info.

the views expressed here are the author's

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"we have met the enemy and he is us." w. kelly

Date: 30 Nov 1993 16:20:11 GMT
From: organpipe.uug.arizona.edu!helium!hlester@uunet.uu.net
To: ham-ant@ucsd.edu

References <2d0apf\$hlj@hpscit.sc.hp.com>, <a5ca02sw57mM01@JUTS.ccc.amdahl.com>,
<CH5y3t.Ho7@herald.indirect.com>e.u
Subject : Re: Vertical Tri-Bander

In article <CH5y3t.Ho7@herald.indirect.com>,
Cecil Moore <kg7bk@indirect.com> wrote:

>short runs. I have a MAX2x4 and the improvement over a 1/4 wavelength
>ground plane antenna is almost unbelievable. I hit repeaters 100 miles away.
>

>73, Cecil, kg7bk@indirect.com

>

I'm impressed! But I can work repeaters 100 miles away with 5 watts and a 1/4 wave ground plane 13' up..... :) I wonder what I'll be able to do when I put up a REAL antenna!

Howard

End of Ham-Ant Digest V93 #129
